

## Business Incentives & Services

<b>1. Projected Program Budget</b>	<b>\$</b>	<b>113,999,715</b>
<b>2. Projected Program Impacts</b>		
MWh		1,156,755
MW (Summer Peak)		387.44
<b>3. Program Cost Effectiveness</b>		
TRC		3.91
PAC		5.84

#### 4. Program Descriptors

Market Sector: Nonresidential (Commercial, Industrial, Agriculture)  
Program Classification: Statewide  
Program Status: Revised Existing Programs

SCE's Business Incentives & Services package (BIS) integrates several previously stand-alone programs:

- 1. Express Efficiency program.** The itemized (prescriptive) measures from this statewide program will be an element of the BIS package.
- 2. Standard Performance Contract program.** The calculated and custom incentives from this statewide program will be elements of the BIS package.
- 3. Nonresidential Audits.** The on-site audit activities associated with the Nonresidential Audits program will be an element of the BIS package. The remote audit activities will become an element of SCE's Education, Training & Outreach program.

#### What's New for 2006-08?

- Innovation
  - Improved customer experience through consolidated application process
- Integration
  - Audits, design assistance
  - Demand response incentives
- Other Program Improvements
  - Simplified application process, coordinated among several existing programs.

The program elements within the Business Incentives & Services package will target all nonresidential customers regardless of size, in terms of monthly kW demand. This integrated package of programs will offer a full range of solutions, including audits, design assistance, and incentives for qualifying measures to all nonresidential customers, from the smallest GS-1 customer to the largest Time-of-Use (TOU) commercial or industrial customer.

The goal of the BIS package is to provide a centralized portal for business customers. BIS provides a simplified process of identifying energy savings opportunities, installing energy efficient equipment, and applying for rebates and incentives. Incentives are

designed to offset a portion of the installed incremental cost of higher efficiency equipment and do so through a straightforward, no-hassle application process. The program elements of the BIS package seek to involve customers, vendors, SCE account representatives, community-based organizations (CBOs), and faith-based organizations (FBOs) in a cooperative environment that promotes energy efficiency education, energy audits, and the adoption of energy efficient technologies.

## **5. Program Statement**

The Business Incentives & Services package (BIS) integrates information, design assistance, and financial incentives to help nonresidential customers adopt energy efficient practices and equipment by addressing informational, financial, performance uncertainty, and transactional cost barriers. As such, the BIS package will be a stand-alone multi-program approach for many nonresidential customer segments. In addition, the BIS package provides a standardized incentive payment application process and

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structure for other segment or end-use specific program strategies, including SCE's Agricultural Energy Efficiency Program, Industrial Energy Efficiency Program and Partnership programs, as well as other third party implemented strategies.

## **6. Program Rationale**

The Business Incentives & Services package provides a foundation to serve the diverse needs of nonresidential customers and energy efficiency service providers. It will provide on-site energy audits, design assistance, project implementation consulting, financial incentives, and measurement and verification assistance to address the many barriers existing in the market. By combining existing on-site energy audits, design assistance and some design assistance features previously offered only under Savings By Design with Express Efficiency and SPC program processes, gaps and overlaps that existed between programs will be resolved, resulting in a more effective approach. Program administrative costs will also be reduced by combining systems and staff functions.

The Express Efficiency and SPC elements of the BIS package have a track record of success in providing superior customer service and substantial energy savings and demand reductions, generally at a low cost per kWh and kW. The on-site audit program has provided an effective means of educating business customers about energy-saving opportunities. By offering the BIS package to all nonresidential customers, the integrated program will build on the best elements of SCE's programs of Express Efficiency (Itemized Measures Element), Standard Performance Contract (Calculated/Customized Measures element), Nonresidential Audits (Audit Services

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element), and Savings By Design (Added Load element), to increase market penetration of energy efficiency, improve current net-to-gross ratios, and drive additional comprehensive retrofit projects. Energy efficiency opportunities and the knowledge to implement those opportunities will be provided through the Audit Services element and design assistance services. Itemized and Calculated/Custom Measure incentives will be used, where necessary, to offset a portion of the incremental cost of energy efficiency measures for retrofit and some added load projects to help meet the customer's investment criteria.

Lost opportunities are minimized through a full-cycle approach which may begin with an initial whole-facility/whole system assessment of a customer's needs and opportunities conducted by experienced SCE staff of field engineers and account representatives - a proven design that encourages implementation of many different types of measures in one project. The Express and SPC elements feature a rebate/incentive structure providing financial incentives for resultant energy savings. For onsite audits, lost opportunities are minimized by using a coordinated end-to-end process, starting from audit requests, and the use of trained, experienced SCE field engineers and account representatives to deliver the audit service to business customers ranging from very small to large.

SCE will further reduce administrative costs and continue the tradition of low cost per kWh savings and kW demand reduction through administrative efficiencies. The BIS programs will provide customers with an uncomplicated and quick method to apply for and receive rebates for common energy-efficient measures as well as more complex engineered solutions.

#### **Rationale for Itemized Measures element**

The itemized measure rebate feature directly addresses key market factors that lead to higher energy costs for California businesses. This approach has been the basis for Express Efficiency since its inception in 1998. The simplified process for customers to apply for and receive a 'per-widget' rebate to reduce capital investment costs of retrofitting outdated and inefficient lighting, HVAC, refrigeration, and foodservice equipment, makes it attractive for firms to spend money in the short-term in order to lower energy costs in the long term. Itemized measures make it quick and easy for any size nonresidential customers to participate in saving energy and reducing peak demand. The itemized measure approach will be open to all customers, regardless of size.

The Express Efficiency Program will continue to ensure that all target customers, statewide, have equitable access to energy efficiency alternatives, regardless of their geographic location, business size or primary language. Express Efficiency itemized measures have become a necessity for customer groups that could easily be overlooked by other programs.

**The Express Efficiency Program will continue to ensure that all target customers, statewide, have equitable access to energy efficiency alternatives, regardless of their geographic location, business size or primary language.**

The use of itemized energy efficiency measures is intended to overcome barriers that prevent many nonresidential customer segments from adopting energy efficiency alternatives, for example:

1. Lack of information about energy efficiency measures is mitigated by the prescriptive, itemized design of Express Efficiency. Customers and vendors are provided with a simplified list of specific measure descriptions to make product selection easier.
2. Availability of high efficiency products is increased. Energy efficiency products become more readily available due to vendors and manufacturers knowing exactly which qualifying products to stock by following the itemized measure specifications.
3. Higher start up expense for high-efficiency measures, a major barrier for small and medium sized customers, are offset by itemized rebates.
4. Lack of financing is addressed. The itemized rebate is frequently used as the down payment for the purchase and installation of energy efficient equipment.
5. The split incentives barrier is overcome by the Payment Release Form that allows either the customer or building owner to receive the rebate.

#### **Rationale for Calculated/Customized Measures element**

The calculated/customized measure incentive feature, offered through the Standard Performance Contract [SPC] program, pays customized incentives based on project performance. As part of both the Commercial and Industrial Hardware Incentive Programs described in SCE's Long-Term Resource Plan Testimony,<sup>1</sup> this aspect fulfills an important role in the package of nonresidential energy efficiency programs. Recognizing that a multitude of processes exist across agricultural, manufacturing, and commercial facilities, offering incentives for the utilization of non-prescribed energy efficient measures encourages and supports comprehensive projects that go beyond single measures and common efficiency practices. As indicated by Quantum Consultant's, *National Nonresidential Best Practices Study*, "The availability of custom efficiency measures and projects that do not lend themselves well to a prescriptive rebate approach are important features in meeting the diverse characteristics of the nonresidential market."<sup>2</sup>

The nonresidential service accounts throughout SCE's service territory have diverse energy needs given the vast range of equipment and systems needed to meet customer expectations and demands. The SPC program addresses potential gaps in incentive availability by offering performance-based contracts that enable customers to apply for specific retrofits or replacements not covered under traditional incentive programs.

As a customized program, SPC is an influential program not only in offsetting the incremental equipment cost, but in encouraging energy efficiency beyond the initial installation and investment. Past participants have confirmed that participation in the

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<sup>1</sup> Dated April 15, 2003, Appendix II.4.

<sup>2</sup> Quantum Consulting, December 2004.

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SPC program did lead to changes in their decision-making process related to energy efficiency<sup>3</sup>.

### **Rationale for Audit Services element**

Customers often lack the expertise or have the appropriate information to identify energy efficiency opportunities and assessing potential energy and cost savings. The offering of energy audits will assist in filling this void. Over the years, the Audit Services program has shown to be an effective method for delivering energy efficiency information and awareness to customers, and leading to participation in energy efficiency projects. An analysis of participants in SCE's 2004 Express Efficiency program indicated that over 11% of the onsite energy audits performed for small and medium customers resulted in the installation of hardware retrofits during the program year.

Integrating the Audit Services program into the Business Incentive and Services package will provide several advantages:

1. The process of referring audit recommendations to the BIS delivery system greatly enhances the current process. Since the vast majority of audit recommendations will be related to measures or process improvements covered under the Express Efficiency and SPC programs, it will be effective and efficient to congregate all the recommendations and then sort and parcel them out to the appropriate delivery channel.
2. This process will also lead to tracking efficiencies. Linking the audit database with SPC Track and SBR databases will result in tracking improvements of the audit process through the stages of recommendation, lead generation, project implementation and results, and follow-up of non-participation.

**The programs comprising the Business Incentives & Services package will be the flagships for nonresidential rebate programs. Since a large percentage of nonresidential energy efficiency projects will involve measures and design applications of a general nature, the bulk of nonresidential energy efficiency projects in SCE's service territory will fall under this program offering.**

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adjunct to audit services, SCE or third party program implementers will provide additional assistance to help a customer or vendor identify and carry out an energy saving project. Assistance may include providing equipment/system design, specifications and/or manufacturer information, contractor/vendor referrals, and detailed project design consultation. If a project can be implemented at this stage without the need for financial incentives, energy savings will be logged into the program tracking system, and claimed toward program goals.

### **Rationale for Added Load Measures element**

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<sup>3</sup> Xenergy 2001 SPC Statewide Evaluation Study

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While the traditional SPC and Express Efficiency program only considered straight replacement or retrofit projects, the BIS approach will expand the boundaries to account and pay incentives for projects that install new, high efficiency equipment to meet the expanded process needs of an existing facility or to accommodate new production loads. Projects that involve modifying an existing operation, structure or process due to growth or expansion that do not qualify for Savings By Design will be reviewed under the BIS package program guidelines. This opens the door to include projects that are not direct, one-for-one replacements and enables the calculated process to capture and account for efficient increases in electric load. The following guidelines will designate projects that fall under the BIS programs rather than Savings By Design:

#### Examples of added load projects

- A building owner replaces an old package rooftop HVAC unit with a larger more efficient unit to accommodate a new computer room.
- A refrigerated warehouse owner adds cold rooms to increase capacity, and replaces old compressors and condensers.
- A hospital energy manager replaces a 300 ton chiller with a high efficiency 450 ton chiller to accommodate and meet increased cooling needs.
- A plastics manufacturer installs a new injection molding machine to accommodate a new product run. The equipment exceeds minimum efficiency standards.

These situations apply through the calculated or customized portion of the SPC program under the following circumstances:

- no walls are removed or no significant impact to existing structures are affected, and/or
- the footprint of the facility remains the same, but a new piece of equipment is added to account for increased production

All equipment must meet all other requirements of the program, and exceed Title 24 or minimum industry standards to be eligible.

## **7. Program Outcomes**

The programs comprising the BIS package will be the flagships for nonresidential rebate programs. Since a large percentage of nonresidential energy efficiency projects will involve measures and design applications of a general nature, the bulk of nonresidential energy efficiency projects in SCE's service territory will fall under this program offering. For projects relating to a specific market segment or technology, several customer-specific (e.g. Industrial Processes, Agriculture, Small Business Direct Install) or technology-specific (Comprehensive HVAC, Retro-commissioning) programs in SCE's energy efficiency package addressing these targeted niches will complement the Business Incentives & Services package.

The overarching goal of the BIS package is to encourage customers to undertake innovative energy efficiency and demand response projects that will result in cost-

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effective, long-term energy savings and peak demand reductions. This package approach will go way beyond simply paying an incentive, through the incorporation of audit recommendations and design assistance at their earliest stage of inception. In many cases, this early involvement alone will cause adoption of a higher efficiency alternative, and incentives may not even be needed in these cases. All types of energy efficiency projects will be covered, including retrofits; as well as installation of new, more efficient load to accommodate process improvements or expanded production; and high efficiency replacements of existing equipment or systems. Emerging technologies are also encouraged through the measured savings approach to motivate adoption of new technologies by providing a real-world and real-time application to monitor and measure effectiveness of these technologies.

The outcome for the nonresidential audits is to encourage customer acceptance and use of energy efficiency technologies. The audit element will help customers reduce the cost and effort of assessing their energy expenses, and encourage customers to make suitable operational changes.

The BIS package strives to address the following:

1. Bridge the gap between the investment in minimum standard equipment and the expense for high-efficiency measures.
2. Offset the capital investment of new, more efficient systems or equipment to provide quicker paybacks on investment.
3. Reduce free ridership (customers who would have invested in energy efficiency regardless of the financial incentive).
4. Provide simplified application processes to reduce customer confusion and frustration

Indicators of program success include meeting or exceeding projected kWh and kW goals through successful installation of energy efficiency systems.

## **8. Program Strategy**

### **Program Strategy – Audits: Energy Efficiency Information**

For large and medium customers, facility surveys and audits will be conducted by SCE or third party program implementer staff to make the customer aware of opportunities that may exist to implement energy efficiency projects. These surveys and audits can be initiated through a customer or vendor request to SCE, through SCE's account management staff, or third party program staff. Detailed information will be recorded in a tracking system, including equipment inventories and project recommendations. Recommendations will be followed up periodically to determine implementation status and whether additional assistance will be required to cause a project to be implemented.

If a project resulting from a survey or audit is implemented without design or financial assistance, energy savings will be logged into the tracking system, and claimed toward program goals. Energy savings for audits will be claimed on a per audit basis. The table below provides a conservative estimate of the savings from the onsite audit service that are not tabulated in the incentive programs.

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Per- Audit Gross Impacts By End-Use and Customer Size

Customer	kWh saved/audit	kW saved/audit	Therms saved/audit
Lighting-small	1,461	0.2	0.0
Lighting-large	15,264	2.5	3.8
HVAC-small	1,448	0.7	79.8
HVAC-large	3,634	0.7	137.6
Total- small	2,909	0.9	79.8
Total-large	18,898	3.2	133.8
Total -all	21,807	4.1	213.6

For smaller customers, onsite audits may be conducted, or information may be provided through direct mail, email, telephone or other means through the Education, Training and Outreach program. Detailed information will be recorded in a tracking system, including equipment inventories and project recommendations. Recommendations will be followed up periodically to determine implementation status, and whether additional assistance will be required to cause a project to be implemented. If a project resulting from a survey or audit is implemented without design or financial assistance, energy savings will be logged into the tracking system, and claimed toward program goals.

**Program Strategy -- Energy Efficiency Design Assistance**

If appropriate, SCE or third party program implementers will provide additional assistance to help a customer or vendor identify and carry out an energy saving project. Assistance may include providing equipment/system design, specifications and/or manufacturer information, contractor/vendor referrals and detailed project design consultations. If a project can be implemented at this stage without the need for financial incentives, energy savings will be logged into the program tracking system and claimed toward program goals.

**Program Strategy -- Financial Incentives**

Incentives are available to customers or their consultants and contractors with the customers' approval. It is not mandatory that audits or design assistance be provided through the program prior to application for incentives. The eligibility requirements and application processes for Express and SPC have been simplified, which will reduce customer confusion. The customer size eligibility requirement for Express will be eliminated. The criteria of whether a project will fall under Express or SPC will now be measure-dependent rather than customer-size dependent. The Express program will handle all itemized measures, and SPC will handle all calculated measures, eliminating customer size limitations. Projects caps will be consistent across both programs as follows:

Customers are eligible to receive up to 75 percent of the installed project cost, not to exceed 100 percent of the incremental cost, or \$1,500,000, whichever is less. The

customer will have the option of receiving the incentive in the form of a utility bill credit or a check.

a. Itemized measures [Express Efficiency program]. If the proposed measure is a designated itemized measure, a fixed incentive amount per unit/measure is offered under the Express Efficiency program. Each measure has prescribed energy savings and a corresponding incentive amount. The applicant indicates the quantity proposed and the resultant total incentive on the form. Applicants are encouraged to make reservations prior to installation for itemized projects. Upon approval by the utility, the applicant is permitted to proceed with the project. Upon verification of project completion, the rebate is paid to the customer. Projects over \$3,000 will require a post-installation inspection, and projects under this threshold are subject to random inspections.

The itemized measure design makes customer participation easy because:

1. The program lists specific energy saving measures, so the customer does not need to take the time to search out energy efficient technologies;
2. The Terms and Conditions clearly state the eligible product specifications and rebate levels;
3. The customer purchases and installs the product from whomever they choose; and
4. The customer simply sends in the rebate form along with the itemized paid invoice.

A customer with an itemized measure eligible for an Express rebate may choose to apply for a calculated incentive under the SPC program instead. This addresses facilities such as manufacturing, or distribution warehouses that have extended operating hours or operate 24 hours, 7 days a week. The applicant may capture actual savings and the corresponding incentive by using the calculated approach. Cross-checks and internal quality control will ensure customers are not applying for the same incentive under both approaches.

b. Calculated measures [SPC]. Measures not listed as itemized or whose energy savings are dependent on the variables of the specific project (e.g. operating hours, loading factor, building type) are listed as calculated measures. For these measures, software tools are available to estimate savings. The applicant will input characteristics of the proposed project into an algorithm model, and the model will calculate the estimated energy savings and corresponding rebate. The models use current minimum standards as the baseline and calculate the energy usage utilizing the proposed project; the difference is the resultant energy savings, which provides the basis for the financial incentive.

All calculations use minimum standards or Title 24 standards as the existing baseline for all end-use systems, unless the equipment qualifies as Early Retirement, in which case the baseline is the existing efficiency. Verifiable savings include those achieved beyond the minimum or Title 24 standards. Estimating software tools are available to assist customers with energy savings calculations or the applicant may provide engineering calculations to justify savings. Only direct savings apply in determining a project's energy savings. For example, savings accumulated from collateral effects like reduced

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air conditioning load as a result of efficient lighting installations, do not qualify for incentive payments.

Pre-and post installation inspections are conducted to verify equipment operation and application submittals. Upon verification of the energy savings calculations, the approved incentive is paid to the customer. Certain projects may require additional measurement and certification to justify and confirm savings estimates. In this case, the applicant is issued a Standard Performance Contract agreement and is compensated with an additional 10 percent of the approved incentive.

Pre-installation inspections are required for most calculated or customized projects. For projects under \$3,000, the pre-inspection may be waived at the discretion of the Utility, depending on the type and complexity of the project. Incentive payments are made upon SCE's verification of project completion, which includes a final post-inspection and review of energy savings achieved.

With the elimination of customer size as a program limitation, a majority of lighting projects will be funded through the itemized element of the BIS package. As a result, the 80/20 lighting rule will no longer be effective. The program will continue to encourage comprehensive projects and SCE will explore opportunities to pay additional incentives for comprehensiveness in 2007, if necessary.

c. Customized measures [SPC]. Measures and processes with limited results history cannot be assigned itemized savings nor can a model to appropriately calculate savings be devised. These measures and processes are not specifically listed as itemized or calculated, and are consequently considered customized. Additional, specific information about the project will be required of the applicant, and based on the information, an engineering analysis and evaluation of the savings potential will be completed. A performance contract between SCE and the customer will be issued; in most cases, subsequent measurement activity will be required to verify the actual savings. Customers would receive an additional 10% of the incentive to offset the measurement cost.

#### Incentive Levels

Calculated and customized measures fall into the following categories and are paid under the corresponding incentive rates:

<b>Measure Category</b>	<b>Incentive Rate</b>
<u>Lighting</u> Includes indoor and outdoor fluorescent, HID, LED replacements, lighting controls, and other lighting projects.	\$0.05 per kWh saved
<u>Air conditioning and refrigeration</u> Includes system and major subsystem replacements	\$0.14 per kWh saved
<u>Controls and other equipment</u> Includes fans, motors, VFDs, air compressors, EMS systems and other equipment not covered under the previous two categories.	\$0.08 per kWh saved

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SCE major account managers and engineers work directly with customers to identify projects, provide calculations, and assist in measurements to meet the application requirements of the program. Additionally, vendors, contractors and energy service companies are provided with materials and resources to market and use the SPC program as a resource in their selling process.

## **9. Program Objectives**

The Business Incentives & Services package of programs will be a major factor in the development and implementation of thousands of energy efficiency projects and measures in SCE's service territory. Providing a straight-forward, easy-to-understand, and easy-to-use vehicle for nonresidential customers to determine energy-saving opportunities and receive financial incentives for taking actions to achieve energy savings is the objective of BIS. The improvements and enhancements of BIS package over previous offerings will have a significant, positive effect of reducing confusion and paperwork for potential rebate applicants; resulting in decreasing lost opportunities (non-participation due to the confusion and paperwork factors).

### Express Efficiency program [itemized measures]

The two primary objectives of the Express Efficiency program are to provide:

1. Energy efficiency education and access to energy efficiency options; and
2. A cost-effective means for all nonresidential customers, regardless of size, to install new energy efficient equipment.

The program's outreach in 2006 and beyond will be focused on all nonresidential customer segments.

Furthermore, to ensure equity to all nonresidential customer segments, the Express Efficiency Program will continue to offer statewide-consistent, cost-offsetting itemized rebates to help customers with the installation cost of new energy efficient equipment, with the goal of:

1. Decreasing customer utility bills;
2. Reducing statewide electric demand;
3. Saving energy

An objective of the Express Program is to pay rebates on a minimum of 6,000 itemized measure projects each year across all nonresidential customer segments and all customer sizes. As new energy efficient measures are identified, measure costs change, or marketing opportunities or failures are identified, additions, or adjustments to, the itemized measure list or rebate amounts will be made. This will ensure that the program remains robust; opportunities to overachieve its goals are not missed; and customers benefit from a flexible program design. To stay abreast of new, proven technologies and to better meet the needs of all nonresidential customers, input from industry experts, vendors, and customers regarding new equipment or technologies or how the program could be improved, will be actively solicited.

### Standard Performance Contract Program [Calculated and Custom measures]

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The program expects to meet or exceed projected kWh and kW savings goals through the implementation of a variety of high efficiency installations. Program goals are to inspect, review calculations, and provide a project status of approval, decline, or suspension no later than 30 days of receiving a completed application. The expeditious processing of applications and meeting the 30 day turnaround is a key indicator of success.

#### Audit Activity

The audit service program plans to conduct approximately 5,300 nonresidential energy audits each year, and plans to capture energy savings and demand reduction savings based on a kWh and kW on per onsite audit. The SCE representative or auditor will encourage customers to implement the recommended measures and participate in SCE's incentive programs to reduce their implementation costs of installing high efficiency products.

A joint SCE/Southern California Gas (SCG) Co. pilot program is planned for 2006. SCE representatives, SCG representatives or a third party vendor will perform 500 joint gas/electric audits and report the results to SCE and SCG. Results of the pilot will be evaluated to determine efficiencies, economy of scale, and possible future training requirements.

#### Integration with Demand Response

The program recognizes the importance of integrating energy efficiency and demand response. Through the integration of certain technologies like energy management systems or other control equipment, both initiatives can be met. Express and SPC provide incentives for many types of control systems that would allow demand reduction and permanent control of lighting, HVAC, and refrigeration systems.

### **10. Program Implementation**

The Business Incentive & Services programs are primarily delivered directly to customers by vendors, SCE account representatives, energy service companies, direct mail, and the internet. The intent of dividing the program in terms of itemized, calculated, and customized rebates is to make it easier for customers to participate in energy efficiency activities and to receive acknowledgement in the form of a financial incentive.

Applicants that wish to participate in the Express Efficiency program for itemized measures only will continue to be allowed to reserve funds for their projects. Reservations will be taken via phone, fax, internet or mail. SCE will maintain an online reservation system for the convenience of applicants. While a reservation is not required to participate in the program, it is recommended, and SCE will continue to encourage applicants to reserve funds. At the time of reservation the applicant will be notified if a pre-inspection is required. Pre-inspection is not required under the Express Efficiency program unless there is a record of prior participation at the proposed project location for the same measures being reserved. Projects with prior participation are subject to mandatory pre and post-inspection. If an applicant does not reserve funds and submits an application that raises the issue of prior participation, it is the responsibility of the

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applicant to clearly demonstrate that the base case requirements in the terms and conditions were met before a rebate will be paid.

The application process is relatively simple. Applications are available in hard-copy form, on-line, through a toll-free number, and through a complimentary program CD. The applicant identifies which application section is appropriate (itemized, calculated, or customized) for the proposed project. Depending on whether the project includes itemized measures and/or a calculated approach the applicant fills out specific sections of the application form. Upon receipt of the application, SCE conducts a review of the information, the extent of which depends on the classification of the measure and/or the complexity of the project.

Applications for itemized measures only will go through the Express Efficiency process and will not be subject to pre-inspection. All itemized measure applications will be subject to either a mandatory post inspection if the rebate amount is over \$3,000 or a random inspection if the rebate amount is under \$3,000. Applications for a project using the calculated approach, or a combination of itemized and calculated measures will be processed as a Standard Performance Contract (SPC) project subject to both pre and post-inspection. It is SCE's goal to issue one rebate check for each project whether it be itemized measures only, calculated only, or some combination of both.

After inspection for calculated or customized projects and approval of the application the applicant is permitted to proceed with the project. When the project is installed and operational, the applicant notifies SCE with an Installation Report. Projects with itemized measures only require just the application and supporting documentation, and no installation report is required. Verification of the purchase and installation is conducted either through an on-site inspection or is based on the information provided by an invoice. Upon successful verification of project completion, the rebate is paid to the customer. Payments are made based on the final verification of the installation and energy savings verification. For itemized and calculated projects, 100% of the payment will be issued upon verification. For customized projects requiring measurement of savings, 60% of the payment will be made upon approval of the Installation Report and the remainder of the earned incentive after approval of an Operating Report, documenting the results of the measurement activity. Projects requiring monitoring will receive an additional incentive of 10% to cover the cost of measurement and are eligible to receive up to an additional 10% based on savings achievement.

SCE's energy auditors will take requests, schedule and conduct energy audits for all nonresidential customers. Post-audit customer actions to retrofit hardware will be tracked to determine the impact of the energy audit on SCE's hardware retrofit programs.

Coordination with other entities has been and will remain a commitment of the Business Incentives & Services package.

1. Coordination with vendors, particularly local ones, has been a key driver in the success of delivering itemized energy efficiency measures. Vendors bring
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- eligible products directly to the customer and make energy efficient equipment purchases convenient. They know and rely on SCE to educate and assist customers with the purchase of time-proven energy efficient products.
2. SCE will continue to actively partner with local governments to explore opportunities to increase program outreach at the local level Working with local government agencies is crucial to meeting the unique needs of the diverse communities in SCE's service territory.

**The SCE local community involvement approach will continue to ensure program equity in regard to program access and help overcome market barriers such as language, geographic location, business size, and opportunity to invest in new energy efficient equipment.**

3. SCE representatives will continue to actively partner with local organizations, including networks of community based organizations (CBOs), faith based organizations (FBOs), ethnic business associations, chambers of commerce, and customer trade associations to coordinate increased program outreach efforts at the local level.

The elements of the Business Incentive & Services package will be coordinated with the SCE Business Solutions Team and Business Customer Division account executives, a diverse group of utility professionals that generally reside in the communities in which they work and belong to organizations that cater to their customer segment. They have a sense of community needs, know the customers well, and are well positioned to assist locally and help individual businesses and members of business organizations and customer groups to identify energy efficiency opportunities and overcome the market barriers related to the achievement of their full energy efficiency potential.

**Onsite Audits.** The SCE's energy auditors will take requests, schedule and conduct energy audits for all nonresidential customers. Post audit customer actions to retrofit hardware will be tracked to determine the impact of the energy audit on SCE's hardware retrofit programs. Program outreach and lead generation will be accomplished primarily through the utility phone center, direct mail, email, on-line audit access, coordination with business organizations and trade groups, local governments, CBOs, and direct cold call contacts with business customers. The onsite energy audit staff will send audit results, status of the audit activity on a weekly basis to the program manager. The program manager will track the all audit activity, budget, marketing efforts, materials needed, and provide biweekly and monthly reports to management.

The SCE local community involvement approach will continue to ensure program equity in regard to program access and help overcome market barriers such as language, geographic location, business size, and opportunity to invest in new energy efficient equipment. Through the Business Incentives & Services package training, educational

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materials and technical support targeted specifically to meet the needs of all nonresidential customers by industry segment will be provided.

## **11. Customer Description**

SCE's Business Incentives & Services package of programs will be open to all SCE nonresidential customers. There is no minimum or maximum customer size. The program will be open to all nonresidential customers, from the smallest GS-1 customer to the largest TOU commercial or industrial customer with itemized, calculated or customized incentives for energy efficiency measures. Customers will receive a comprehensive energy efficiency services package, including energy surveys, training and information, rebates, and technical assistance. The BIS package will augment customer or end-use specific programs, such as the Industrial Energy Efficiency Program and Agricultural Energy Efficiency Program.

The BIS package targets facility engineers, energy managers or property managers, business owners, and maintenance staff responsible for the oversight of energy efficiency improvements at their facility or building. Organizations such as property management

**The Express and SPC programs will develop a module to help customers comply with the specific requirements of the Governor's Green Building Executive Order for state-owned buildings, and will encourage and provide assistance to cities, counties, and private businesses to adopt the requirements of the Executive Order on a voluntary basis.**

companies, consulting engineers, HVAC contractors, lighting vendors and energy service companies who sponsor energy efficiency retrofit projects at utility customer facilities are eligible to participate.

## **12. Customer Interface**

The program will be delivered through various channels such as SCE's customer representatives, SCE Engineers, contractors and vendors, energy service companies, partnerships, and consultants. Past program experience with such a diverse nonresidential sector indicates that a variety of approaches to encouraging customers to engage in energy efficiency is ideal.

## **13. Energy Measures and Program Activities**

### **13.1. Measures Information**

The Express Efficiency Program includes more than 50 cost effective itemized measures that are organized into five general end use categories. For these measures, eligibility requirements are clearly defined, energy savings (kWh and kW) are prescribed, and the rebate is a standard per-unit amount. The five end-use categories are:

- Lighting
  - Refrigeration
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- Heating, ventilation and air conditioning (HVAC)
- Agriculture
- Food Service

Itemized measure information is provided in the corresponding program workbook [E3 Calculator]. Energy savings assumptions are based on historical data of previous Express Efficiency program years and 2004 DEER data.

The SPC element will provide incentives for energy efficiency measures not included under Express Efficiency. These include both calculated and customized measures. Calculated measures are commonly implemented measures where reliable, historical data is available. This allows for an accurate forecast of savings, and therefore a model has been developed to assist the applicant with the calculation of savings. The opportunities for these energy efficiency improvements are vast. The largest opportunities for energy efficiency include refrigeration, compressor and motor upgrades, high efficiency chillers, lighting and occupancy sensors.<sup>4</sup>

For these measures, an energy-savings calculation model will be utilized to estimate energy savings and corresponding incentive, based on an annual per-kWh saved rate. Calculated measures include:

- Lighting replacement and controls (those measures not itemized)
- AC units (those not covered by SCE's Upstream AC program)
- Early retirement incentive for AC units
- Early retirement incentive for motors
- Package and custom-built chillers
- Cool roofs
- A/C economizers
- Variable speed drives for centrifugal chillers, cooling tower fans and HVAC fans
- Variable speed drives for processing applications
- Variable speed drives for dairy vacuum pumps
- Demand control ventilation
- Carbon monoxide sensors
- Air compressor system upgrades
- Profession wet cleaning
- Injection molding machines
- Pulse cooling for injection molders
- Rapid close doors
- Refrigerated tank insulation
- Tape drip irrigation
- Pump off controllers for oil wells
- Wastewater retro-commissioning

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<sup>4</sup> Xenergy, "California's Secret Energy Surplus, The Potential for Energy Efficiency," 2002

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Measures and processes not identified as itemized or calculated are categorized as customized. Those measures will require the applicant to submit a comprehensive engineering analysis to determine energy savings and the appropriate incentive amount. This process permits emerging technologies and new entrants in the industry the opportunity to make their way into the marketplace. In general, projects involving these measures and processes may require subsequent monitoring and measurement to verify the estimated savings. As sufficient operating and savings history is gained on specific customized measures, a standardized calculation model may be developed and the measure added to the list of calculated measures.

### **13.2. Energy Savings and Demand Reduction Level Data**

Energy savings and demand reduction information is provided in a corresponding cost-effectiveness calculator and package workbook.

### **13.3. Non-energy Activities**

The programs will also host several training classes to educate end-users and contractors on specific end-use equipment. For example, SCE will host Compressed Air Challenge level 1 and 2 workshops targeted at end users, operations staff, and vendors. These workshops are designed to educate participants on performance issues and energy savings opportunities through assessment and improvement of facility compressed air systems. Other training activities may include refrigeration systems, including cooler case and large end-use storage and refrigeration facilities. Separate contractor/customer seminars will also be planned.

Additionally, program representatives will staff, attend, and host exhibits at appropriate industry trade shows and local seminars such as NAESCO, Association for Energy Engineers, ACEEE, and the Facility Management Show.

### **13.4. Subcontractor Activities**

SCE will serve as administrator of the Business Incentives & Services package of programs. SCE staff will manage daily program requirements, process applications, work closely with third party reviewers to conduct pre-and post-inspections, provide customer support, manage the program database, and prepare and file required internal and Commission reports.

Third parties will be utilized extensively to perform application reviews, on-site inspections, and measurement and savings verification activities. For the onsite audit service, SCE's Business Solutions Group will perform audits for the unassigned (i.e. small) customers, and the Business Customer Division will perform audits for the assigned (i.e. large) customers. Depending on the size and complexity of the facility the audit is either performed by an account representative or field engineer. The automated audit tool, a pocket PC, portable printer and audit software, are provided by a third-party.

### **13.5. Quality Assurance and Evaluation Activities**

The BIS package has several quality assurance evaluations in place to ensure the programs run efficiently and cost-effectively. Calculated and customized projects are

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reviewed and verified using outside consultants as unbiased participants in the program. A complete review and assessment of their recommendations are reviewed and quality-checked by SCE program administrators. Program staff will accompany inspectors on approximately 2 to 5 % of application inspections to ensure the program is represented appropriately and the information disseminated is correct.

The primary measurement of program success will be verification of measures installed and tabulation of the ex-ante energy and demand savings, versus baseline measures. Estimates will be based on an onsite verification of a selected sample of installations (across all utilities) on an ongoing basis to ensure that the rebated measures were installed correctly. An assessment of the verification process will be undertaken at the end of the year to ensure sampling validity. For measurement of energy savings, a detailed EM&V plan will be developed by an independent consultant that will select methods that are consistent with the currently adopted set of measurement rules at the time the detailed plan is developed. Either in this evaluation or in an over-arching statewide study, the ex ante energy and demand savings estimates will be reviewed, and new ex post estimates will be developed where there is found to be a need for additional measurement to assure accurate savings estimates. Changes in manufacturer and distributor stocking practices of energy efficiency equipment will also be assessed, if needed. Savings estimates will be updated to reflect the best available information, as needed.

The Program Manager, in coordination with field staff will verify and validate audit results and correct any discrepancies. The Program Manager will coordinate verification of the influence of the program to the incentive/rebate programs.

To comply with the objectives of the Commission for ongoing assessment and improvement of programs, the EM&V plan will also focus on:

1. Analysis of program accomplishments;
2. Comparisons of SCE's programs with best practices for the program design, delivery and implementation;
3. Assessment of program targeting and customer satisfaction including upstream market actors, if needed;
4. Incentive levels and customer satisfaction; and
5. Additional market assessment and evaluation as needed.

The EM&V plan will address process issues such as statewide integration between the investor-owned utilities, and with other California programs including financing options:

- *Process Evaluation:* This task will include evaluation of program delivery mechanisms, marketing and delivery channels, timelines and customer satisfaction. The research will provide ongoing feedback and corrective guidance regarding program implementation through a customer behavior study, and it will measure indicators of the program effectiveness. Surveys undertaken as part of the process evaluation are likely to include participating and non-participating customers and trade allies.
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- *Market Assessment and Customer Behavior Analysis:* These tasks will assist in assessing customer awareness, behaviors and practices given their participation in the Business Rebate program. The data used will be drawn from the process evaluation survey of customers and from the verification data collection. The market saturation/market share/potential data from statewide studies currently underway will be another primary source of information for market assessment and baseline analysis.

### **13.5.1. Expected Number/Percent of Inspections (planned percent of projects)**

The Express Efficiency program will adopt a rigorous inspection plan that will ensure that itemized measures are installed and operational. The overall level of inspection for itemized measures will be 20% of the total number of itemized projects. The estimated number of inspections is 1,200 each year for a population of about 6,000 projects.

Out of a forecast 1,000 annual calculated and customized applications, about 80% will be pre-installation inspected, and about 98% of completed and installed projects will undergo a post-installation inspection.

The Audit program will conduct 400 audit verifications per year. These verifications will be conducted by a third party.

### **13.6. Marketing Activities**

The Business Incentives & Services package will include effective outreach and marketing to small business, commercial, retail, hospital, and institutional customers. This strategy will encourage comprehensive upgrades with emphasis placed on multiple systems, and overall efficiency upgrades.

Customers will receive application information and program updates through websites, service representatives, energy service providers, trade organizations, industry associations, at industry trade shows, and special events. The Education and Training Services program will market the program and provide outreach through special events, trade shows, website communication, and other training and education venues.

The Standard Performance Contract element will include effective outreach and marketing to nonresidential agricultural, manufacturing, commercial, and industrial customers with comprehensive, complex projects not eligible as an itemized measure.

Education, outreach and marketing activities will target all nonresidential SCE service accounts. These include the top 5,000 assigned customers who work directly with assigned SCE account executives, and the remaining unassigned customers which may have high levels of awareness of SCE programs, but need more direct information and better assistance on how to participate in a rebate program. Specific marketing strategies will be developed for the unassigned market to generate interest, encourage participation, and strengthen relationships with customers.

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Additionally, education and marketing outreach will include coordination with energy service providers, trade associations, other local business groups and government entities to generate interest and participation. Marketing activities will also include the development and design of marketing materials, application forms, updated program CDs, giveaways, direct mailers, bill inserts, website information, and other appropriate program literature as needed.

The BIS package will also coordinate with other third party administered programs to encourage participation and leverage on-going, non-utility energy efficiency programs, activities and events. Additionally, the programs will proactively coordinate with local government, trade associations, industry groups, Chambers of Commerce, government agencies, and other local businesses to increase program reach and participation levels. To the extent possible, promotions and information will be fully integrated with other SCE programs, such as the Building Operator Certification program, which offers informational classes to building engineers and facility managers for the purpose of increasing their knowledge in large commercial facilities.

#### **14. Program Changes**

- Budget and goals increased.
  - Prescriptive measures are now referred to as “itemized”
  - The overall program is now referred to as Business Incentives & Services package (BIS) instead of Business Incentive Program.
  - Section 6.4: Explains the expansion of SPC projects beyond retrofit or direct replacement. Defines and provides examples of added load projects now covered under the calculated element of BIS.
  - Section 8.3: Project and site cap limitations have been defined. (75% of project cost, not to exceed 100% of incremental cost, and limited to \$1.5 million per project.) This applies to calculated, customized and itemized projects.
  - Section 8.3: Due to a majority of lighting projects being funded under the itemized element of BIS, the 80/20 rule is being eliminated in 2006.
  - Section 9: A pilot program for a joint SCE and Sempra (Southern California Gas Co) is planned for 2006
  - Section 10 and 13.4 – Detailed description of onsite audits, and how they will be implemented.
  - Section 10: Details of reservation process in Express, and inspection limits for Express Efficiency customers. (Projects over \$3,000 will be post-inspected.)
  - In 2004-2005, most HVAC equipment and motors were not eligible for rebates or incentives under Express Efficiency or SPC, as those measures were covered under the Upstream HVAC & Motors program. With the introduction of SCE’s Comprehensive Packaged Air Conditioning Systems (CPACS) program, air conditioning units under 63.3 tons will remain ineligible for rebates or incentives under Express or SPC, as they will be funded through CPACS. However, there will not be an SCE upstream
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program involving motors. Therefore, motors of all sizes will again be eligible for rebates and incentives under the BIS package in 2006.

Additional program Features to be introduced during the Program Period (2006-2008).

New features will be added to the BIS package after implementation in early 2006.

Additional research and analysis will be conducted to enable these features to be acceptable to SCE's customers, to be cost-effective and to be implementable on a statewide basis.

- Integration of demand response equipment into the BIS package. Expand the audit function to include assessment of demand response opportunities and process applications for DR equipment incentives through the BIS programs. Expected date of implementation: 2006.
- Promote the Governor's Green Building Executive Order. The Express and SPC programs will develop a module to help customers comply with the specific requirements of the Governor's Green Building Executive Order for state-owned buildings, and will encourage and provide assistance to cities, counties, and private businesses to adopt the requirements of the Executive Order on a voluntary basis. Expected date of implementation: 2006
- Incentives for on-peak load reduction. Institute a rate structure which will provide an additional incentive for those measures which effectively reduce load during peak hours. Expected date of implementation: 2007
- Encourage project comprehensiveness. Replace the "80/20 rule" with an innovative approach to motivate customers to plan and complete comprehensive energy efficiency projects. Expected date of implementation: 2007.

[need a bullet here]Further integration of audit activities with Southern California Gas Company. In 2006, SCE and SoCalGas will institute a pilot program to conduct joint audits (i.e. gas and electric). This will be fine-tuned and expanded during the 3-year Program Period.

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